



4. The date, location and type of any administrative or judicial proceedings initiated concerning the violation, including but not limited to, proceedings initiated by any person identified in subsection (2)(C) to obtain administration or judicial review of the violations;

5. The current status of the proceedings and of the violation notice;

6. The actions, if any, taken by the applicant to abate the violation; and

7. Any identifying numbers for the operation, including the federal or state permit number and the MSHA number; and

(D) After an applicant is notified that his/her application is approved, but before the permit is issued, the applicant, as applicable, shall update, correct or indicate that no change has occurred in the information previously submitted under this section.

#### (3) Right of Entry and Operation Information.

(A) Each application shall contain a description of the documents upon which the applicant bases his/her legal right to enter and begin surface mining activities in the permit area and whether that right is the subject of pending litigation. The description shall identify those documents by type and date of execution, identify the specific lands to which the documents pertain and explain the legal rights claimed by the applicant.

(B) Where the private mineral estate to be mined has been severed from the private surface estate, the application shall also provide for lands within the permit area—

1. A copy of the written consent of the surface owner to the extraction of coal by surface mining methods;

2. A copy of the document of conveyance that expressly grants or reserves the right to extract the coal by surface mining methods; or

3. If the conveyance does not expressly grant the right to extract the coal by surface mining methods, documentation that under the state law the applicant has the legal authority to extract the coal by those methods.

(C) Nothing in this section shall be construed to afford the commission or director the authority to adjudicate property title disputes.

#### (4) Relationship to Areas Designated Unsuitable for Mining.

(A) Each application shall contain a statement of available information on whether the proposed permit area is within an area designated unsuitable for surface mining activities under 10 CSR 40-5.020 or under study for designation in an administrative proceeding under that rule.

(B) If an applicant claims the exemption in 10 CSR 40-6.070(8)(D)2., the application shall contain information supporting the

applicant's assertion that it made substantial legal and financial commitments before January 4, 1977, concerning the proposed surface mining activities.

(C) If an applicant proposes to conduct surface mining activities within three hundred feet (300') of an occupied dwelling, the application shall contain the waiver of the owner of the dwelling as required in 10 CSR 40-5.010(3)(E).

#### (5) Permit Term Information.

(A) Each application shall state the anticipated or actual starting and termination date of each phase of the surface mining activities and the anticipated number of acres of land to be affected for each phase of mining and over the total life of the permit.

(B) If the applicant proposes to conduct surface mining activities in excess of five (5) years, the application shall contain the information needed for the showing required under 10 CSR 40-6.070(12)(A).

#### (6) Personal Injury and Property Damage Insurance Information. Each permit application shall contain a certificate of liability insurance.

(7) Identification of Other Licenses and Permits. Each application shall contain a list of all other licenses and permits needed by the applicant to conduct the proposed surface mining activities. This list shall identify each license and permit by—

(A) Type of permit or license;

(B) Name and address of issuing authority;

(C) Identification numbers of applications for those permits or licenses or, if issued, the identification numbers of the permits or licenses; and

(D) If a decision has been made, the date of approval or disapproval by each issuing authority.

(8) Identification of Location of Public Office for Filing of Application. Each application shall identify, by name and address, the public office where the applicant will simultaneously file a copy of the application for public inspection under 10 CSR 40-6.070(2)(D).

(9) Newspaper Advertisement and Proof of Publication. A copy of the newspaper advertisement of the application and proof of publication of the advertisement shall be filed with the director and made a part of the complete application, not later than four (4) weeks after the last date of publication required under 10 CSR 40-6.070(2)(A).

(10) Access. The written consent, of the applicant and any other persons necessary to grant access, should be given to the

commission or the director for the area of land affected under application from the date of application until the expiration of any permit granted under the application and after that for such time as is necessary to assure compliance with all provisions of this law or any corresponding rule.

*Auth: section 444.530, RSMo (1994).\**  
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*\*Original authority 1971, amended 1983, 1990, 1993.*

### 10 CSR 40-6.040 Surface Mining Permit Applications—Minimum Requirements for Information on Environmental Resources

**PURPOSE:** This rule sets forth requirements for information on environmental resources for surface mining permit applications pursuant to sections 444.810, 444.820, 444.825, 444.835, 444.840 and 444.850, RSMo.

**Editor's Note:** The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.

#### (1) Responsibilities.

(A) It is the responsibility of the applicant to provide, except where specifically exempted in this rule, all information required by this rule in the application.

(B) It is the responsibility of state and federal government agencies to provide information for applications as specifically required by this rule.

(2) General Requirements. Each permit application shall include a description of the existing, premining environmental resources within the proposed mine plan area and adjacent areas that may be affected or impacted by the proposed surface mining activities.

(3) General Environmental Resources Information. Each application shall describe and identify—

(A) The size, sequence and timing of the subareas of the mine plan area for which it is anticipated that individual permits for mining will be requested over the estimated total life of the proposed surface mining activities; and

(B) The nature of cultural and historic resources listed or eligible for listing on the National Register of Historic Places and known archaeological features within the proposed mine plan and adjacent areas. The description shall be based on all available information including, but not limited to, data of state and local archaeological, historical and cultural preservation agencies. Based on this information, the applicant may recommend to the director appropriate identification, evaluation or mitigation measures. The director may require the applicant to identify and evaluate important historic resources and archaeological sites that may be eligible for listing on the National Register of Historic Places through collection of additional information, conduct of field investigation or other appropriate analyses.

(4) Description of Hydrology and Geology—General Requirements.

(A) Each application shall contain a description of the geology, hydrology and water quality and quantity of all lands within the proposed mine plan area, the adjacent area and the general area. The description shall include information on the characteristics of all surface and ground waters within the general area and any water which will flow into or receive discharges of water from the general area. The description shall be prepared according to sections (4)—(8) of this rule and conform to this section.

(B) Information Provided by the Director.

1. Information on hydrology, water quality and quantity and geology related to hydrology of areas outside the proposed mine plan area and within the general area shall be provided by the director, to the extent that this data is available from an appropriate federal or state agency.

2. If this information is not available from those agencies, the applicant may gather and submit this information to the director as part of the permit application.

3. The permit shall not be approved by the commission or director until this information is made available in the application.

(C) The use of modeling techniques may be included as part of the permit application, but the same surface and ground water information may be required for each site as when models are not used.

(5) Geology Description.

(A) The description shall include a general statement of the geology within the proposed mine plan and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer to be affected below the lowest coal seam to be mined. The description shall include the areal and structural geology of the permit and adjacent areas and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity and quality of potentially impacted surface and ground waters. It shall be based on—

1. The cross-sections, maps and plans required by section (15) of this rule;

2. The information obtained under paragraphs (5)(B)1. and 2. of this rule; and

3. Geologic literature and practices.

(B) Test Borings and Core Samples.

1. Test borings or core samples from the proposed permit area shall be collected and analyzed down to and including the stratum immediately below the lowest coal seam to be mined, or any aquifer below the lowest coal seam which may be adversely affected, to provide the following data in the description:

A. Location of subsurface water, if encountered;

B. Logs of drill holes showing the lithologic characteristics and thickness of each stratum and each coal seam;

C. Physical properties of each stratum within the overburden;

D. Chemical analysis of each stratum within the overburden and the stratum immediately below the lowest coal seam to be mined to identify, at a minimum, those horizons which contain potential acid-, toxic-forming or alkalinity-producing materials; and

E. Analyses of the coal seam, including, but not limited to, an analysis of the sulfur, pyrite and marcasite content.

2. If required by the commission or director, test borings or core samplings shall be collected and analyzed to greater depths within the proposed permit area, or for areas outside the proposed permit area to provide for evaluation of the impact of the proposed activities on the hydrologic balance.

3. An applicant may request that the requirement for a statement of the results of the test borings or core samplings be waived by the director. The waiver may be granted only if the director makes a written determination that the statement is unnecessary because other equivalent information is accessible to him/her in a satisfactory form.

(6) Groundwater Information.

(A) The application shall contain a description of the groundwater hydrology for the proposed mine plan and adjacent area, including, at a minimum:

1. The depth below the surface and the horizontal extent of the water table and aquifers;

2. The lithology and thickness of the aquifers;

3. Known uses of the water in the aquifers and water table; and

4. The quality of subsurface water, if encountered.

(B) The application shall also contain information which describes the recharge, storage and discharge characteristics of aquifers and the quality and quantity of groundwater, in the parameters and in the detail necessary to evaluate these characteristics.

(7) Surface Water Information.

(A) Surface water information shall be described, including the name of the watershed which will receive water discharges, the location of all surface water bodies such as streams, lakes, ponds and springs, the location of any water discharge into any surface body of water and descriptions of surface drainage systems sufficient to identify, in detail, the seasonal variations in water quantity and quality within the proposed mine plan and adjacent areas.

(B) Surface water information shall include:

1. Minimum, maximum and average discharge conditions which identify critical low flow and peak discharge rates of streams sufficient to identify seasonal variations; and

2. Water quality data to identify the characteristics of surface waters in, discharging into or which will receive flows from surface or ground water from affected areas within the proposed mine plan area sufficient to identify seasonal variations, showing—

A. Total dissolved solids in milligrams per liter;

B. Total suspended solids in milligrams per liter;

C. Acidity;

D. pH in standard units;

E. Total and dissolved iron in milligrams per liter;

F. Total manganese in milligrams per liter; and

G. Other information as the director determines is relevant.

(8) Alternative Water Supply Information. The application shall identify the extent to which the proposed surface mining may proximately result in contamination, diminution or interruption of any underground or

surface source of water within the proposed mine plan or adjacent areas for domestic, agricultural, industrial or other legitimate use. If contamination, diminution or interruption may result, then the description shall identify the alternative sources of water supply that could be developed to replace the existing sources.

(9) Climatological Information.

(A) When requested by the director, the application shall contain a statement of the climatological factors that are representative of the proposed mine plan area, including:

1. The average seasonal precipitation;
2. The average direction and velocity of prevailing winds; and
3. Seasonal temperature ranges.

(B) The director may request additional data as deemed necessary to ensure compliance with the requirements of this chapter.

(10) Vegetation Information.

(A) The permit application shall contain a map that delineates existing vegetative types and a description of the plant communities within the proposed permit area and within any proposed reference area. This description shall include information adequate to predict the potential for reestablishing vegetation.

(B) When a map or aerial photograph is required, sufficient adjacent areas shall be included to allow evaluation of vegetation as important habitat for fish and wildlife for those species of fish and wildlife identified under section (11) of this rule.

(11) Fish and Wildlife Resources Information.

(A) The fish and wildlife information required will be consistent with the Endangered Species Act of 1973, (16 U.S.C. Section 1531); section 444.855.2(17), RSMo; 10 CSR 40-3.040(18); and 10 CSR 40-3.100.

(B) Each application shall include information on fish and wildlife and their habitats within the proposed mine plan area and the portions of the adjacent areas where effects on these resources may reasonably be expected to occur. This information shall be sufficient in detail to design the protection and enhancement plan required in 10 CSR 40-6.050(7).

(C) The director, in consultation with the Missouri Department of Conservation and the United States Fish and Wildlife Service, shall determine the minimum level of informational detail and specify the areas from which information will be obtained and shall make a determination based on—

1. Published data and the Missouri Natural Features Inventory and other information;
2. Site-specific information obtained by the applicant in accordance with subsection (11)(D) of this rule; and

3. Written guidance obtained from agencies consulted.

(D) Site-specific information obtained by the applicant to satisfy paragraph (11)(C)2. of this rule, at a minimum, shall include the following:

1. Amount of woodland edge;
2. Extent of food sources, nesting places and concealment cover;
3. Degree of interspersion of habitat types; and
4. Amount and quality of permanent water sources.

(E) Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include at a minimum:

1. Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the secretary under the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531, et seq.) or those species or habitats protected by the state of Missouri as listed in the current publication of *Rare and Endangered Species of Missouri* as determined by the Missouri Department of Conservation;

2. Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes or reproduction and wintering areas; or

3. Other species or habitats identified through agency consultation as requiring special protection under state or federal law.

(F) Fish and Wildlife Service. Upon request, the regulatory authority shall provide the resource information required under this section and the protection and enhancement plan required under this section to the United States Department of the Interior, Fish and Wildlife Service Regional or Field Office, for their review. This information shall be provided within ten (10) days of receipt of the request from the service.

(12) Soil Resources Information.

(A) The applicant shall provide adequate soil survey information of the permit area consisting of the following:

1. A map delineating different soils;
2. Soil identification;
3. Soil description; and
4. Present and potential productivity of prime farmland soils.

(B) Where the applicant proposes to use selected overburden materials as a supplement or substitute for topsoil, the application shall provide results of the analyses, trials and tests required under 10 CSR 40-3.030(2).

(13) Land Use Information.

(A) The application shall contain a statement of the condition, capability and productivity of the land within the proposed permit area, including:

1. A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within five (5) years before the anticipated date of beginning the proposed operations, the historic use of the land also shall be described; and

2. A narrative of land capability and productivity, which analyzes the land use description under subsection (13)(A) of this rule in conjunction with other environmental resources information required under this rule. The narrative shall provide analysis of—

A. The capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the proposed permit area; and

B. The productivity of the proposed permit area before mining, expressed as average yield of food, fiber, forage or wood products from these lands obtained under high levels of management. The productivity shall be determined by yield data or estimates for similar sites based on current data from the United States Department of Agriculture, state agricultural universities or appropriate state agencies.

(B) The application shall state whether the proposed mine plan area has been previously mined and, if so, require the following information, if available:

1. The type of mining method used;
2. The coal seams or other mineral strata mined;
3. The extent of coal or other minerals removed;
4. The approximate dates of past mining; and
5. The uses of the land preceding mining.

(C) The application shall contain a description of the existing land uses and land-use classifications under local law, if any, of the proposed mine plan and adjacent areas.

(14) Maps—General Requirements. The permit application shall include maps showing:

(A) All boundaries of lands and names of present owners of record of those lands both surface and subsurface, included in or contiguous to the permit area;

(B) The boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin surface mining activities;

(C) The boundaries of all areas proposed to be affected over the estimated total life of the proposed surface mining activities, with a

description of size, sequence and timing of the mining of subareas for which it is anticipated that additional permits will be sought;

(D) The location of all buildings on and within one thousand feet (1000') of the proposed permit area, with identification of the current use of the buildings;

(E) The location of surface and subsurface man-made features within, passing through or passing over the proposed permit area, including, but not limited to, major electrical transmission lines, pipelines and agricultural drainage tile fields;

(F) The location and boundaries of any proposed reference areas for determining the success of revegetation;

(G) The locations of water supply intakes for current users of surface water flowing into, out of and within a hydrologic area defined by the director and those surface waters which will receive discharges from affected areas in the proposed mine plan area;

(H) Each public road located in or within one hundred feet (100') of the proposed permit area;

(I) The boundaries of any public park and locations of any cultural or historical resources listed or eligible for listing in the National Register of Historic Places and known archaeological sites within the mine plan and adjacent areas;

(J) Each public or private cemetery or Indian burial ground located in or within one hundred feet (100') of the proposed permit area;

(K) Any land within the proposed mine plan area and adjacent area which is within the boundaries of any units of the National System of Trails or the Wild and Scenic Rivers System, including study rivers designated under Section 5(a) of the Wild and Scenic Rivers Act;

(L) All buffer zones as defined at 10 CSR 40-8.010(1)(A); and

(M) Other relevant information required by the director.

(15) Cross-Sections, Maps and Plans. The application shall include cross-sections, maps and plans showing—

(A) Elevations and locations of test boring and core samplings;

(B) Elevations and locations of monitoring stations used to gather data for water quality and quantity, fish and wildlife and air quality, if required in preparation of the application;

(C) Nature, depth and thickness of the coal seams to be mined, any coal or rider seams above the seam to be mined, each stratum of the overburden and the stratum immediately below the lowest coal seam to be mined;

(D) All coal croplines and the strike and dip of the coal to be mined within the proposed mine plan area;

(E) Location and extent of known workings of active, inactive or abandoned underground mines, including mine openings to the surface within the proposed mine plan and adjacent areas;

(F) Location and extent of subsurface water, if encountered, within the proposed mine plan or adjacent areas;

(G) Location of surface water bodies such as streams, lakes, ponds, springs, constructed or natural drains and irrigation ditches within the proposed mine plan and adjacent areas;

(H) Location and extent of existing or previously surface mined areas within the proposed mine plan area;

(I) Location and dimensions of existing areas of spoil, waste and noncoal waste disposal dams, embankments, other impoundments and water treatment and air pollution control facilities within the proposed permit area;

(J) Location and depth, if available, of gas and oil wells within the proposed permit area and water wells in the mine plan area and adjacent area;

(K) Sufficient slope measurements to adequately represent the existing land surface configuration of the proposed permit area, measured and recorded according to the following:

1. Each measurement shall consist of an angle of inclination along the prevailing slope extending one hundred (100) linear feet above and below or beyond the coal outcrop or the area to be disturbed or, where this is impractical, at locations specified by the director;

2. Where the area has been previously mined, the measurements shall extend at least one hundred feet (100') beyond the limits of mining disturbances, or any other distance determined by the director to be representative of the premining configuration of the land; and

3. Slope measurements shall take into account natural variations in slope to provide accurate representation of the range of natural slopes and reflect geomorphic differences of the area to be disturbed; and

(L) Maps, plans and cross-sections included in a permit application which are required by this section shall be prepared by or under the direction of and certified by a qualified registered professional engineer, or a professional geologist, with assistance from experts in related fields, such as land surveying and landscape architecture, and shall be updated as required by the commission or director.

(16) Prime Farmland Investigation.

(A) Land shall not be considered prime farmland when the applicant can demonstrate one (1) of the following:

1. The land has not been historically used as cropland;

2. The slope of the land is ten percent (10%) or greater;

3. The land is not irrigated or naturally subirrigated, has no developed water supply that is dependable or of adequate quality and the average annual precipitation is fourteen inches (14") or less;

4. Other factors exist, such as a very rocky surface or the land is frequently flooded during the growing season, more often than once in two (2) years and the flooding has reduced crop yields; or

5. On the basis of a soil survey of lands within the mine plan area, there are no soil map units that have been designated prime farmland by the United States Soil Conservation Service.

(B) If the investigation establishes that the lands are not prime farmland, the applicant shall submit with the permit application a request for a negative determination which shows that the land for which the negative determination is sought meets one (1) of the criteria of subsection (16)(A) of this rule.

(C) Application Contents—Reconnaissance Inspection.

1. All permit applications, whether or not prime farmland is present, shall include the results of a reconnaissance inspection of the proposed permit area to indicate whether prime farmland exists. The director or commission in consultation with the United States Soil Conservation Service shall determine the nature and extent of the required reconnaissance inspection.

2. If the reconnaissance inspection establishes that prime farmland does exist within the proposed permit area, but that it has not been historically used as cropland, the applicant may submit a request for negative determination.

3. If the reconnaissance inspection indicates that land within the proposed permit area may be prime farmland historically used for croplands, the applicant shall determine if a soil survey exists for those lands and whether soil mapping units in the permit area have been designated as prime farmland. If no soil survey exists, the applicant shall have a soil survey made of the lands within the permit area which the reconnaissance inspection indicates could be prime farmland. Soil surveys of the detail used by the United States Soil Conservation Service for operational conservation planning shall be used to identify and locate prime farmland soils. If the soil survey indicates that prime farmland soils are present within the proposed permit area, 10 CSR 40-6.060(4) shall apply.

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\*Original authority 1971, amended 1983, 1990, 1993.

### 10 CSR 40-6.050 Surface Mining Permit Application—Minimum Requirements for Reclamation and Operations Plan

**PURPOSE:** This rule sets forth requirements for reclamation and operations plans for surface mining permit applications pursuant to sections 444.810, 444.820 and 444.825, RSMo.

*Editor's Note: The secretary of state has determined that the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.*

#### (1) Responsibilities. It is the responsibility—

(A) The applicant to provide to the commission and director all of the information required by this rule except where specifically exempted in this rule.

(B) State and federal governmental agencies to provide information to the commission and director where specifically required in this rule.

#### (2) Operations Plan—General Requirements. Each application shall contain a description of the mining operations proposed to be conducted during the life of the mine within the proposed mine plan area, including at a minimum, the following:

(A) A narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal by tonnage and the major equipment to be used for all aspects of those operations; and

(B) A narrative explaining the construction, modification, use, maintenance and removal of the following facilities (unless retention of these facilities is necessary for postmining land use as specified in 10 CSR 40-3.130):

1. Dams, embankments and other impoundments;

2. Overburden and topsoil handling and storage areas and structures;

3. Coal removal, handling, storage, cleaning and transportation areas and structures;

4. Spoil, coal processing waste and non-coal waste removal, handling, storage, transportation and disposal areas and structures. Except for spoil, the narrative should be in accordance with the appropriate section(s) of 10 CSR 40-3.080;

5. Mine facilities; and

6. Water and air pollution control facilities.

#### (3) Operations Plan—Existing Structures.

(A) Each application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the surface coal mining and reclamation operation. The description shall include:

1. Location;

2. Plans of the structure which describe its current condition;

3. Approximate dates on which construction of the existing structure was begun and completed; and

4. A showing, including relevant monitoring data or other evidence, whether the structure meets the performance standards of 10 CSR 40-3 and 10 CSR 40-4, or if the structure does not meet the performance standards of 10 CSR 40-3 and 10 CSR 40-4, a showing whether the structure meets the performance standards of 10 CSR 40-2.

(B) Each application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation. The compliance plan shall include:

1. Design specifications for the modification or reconstruction of the structure to meet the design and performance standards of 10 CSR 40-3 and 10 CSR 40-4;

2. A construction schedule which shows dates for beginning and completing interim steps and final reconstruction;

3. Provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of 10 CSR 40-3 and 10 CSR 40-4 are met; and

4. A showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.

#### (4) Operations Plan—Blasting.

(A) Blasting Plan. Each permit application shall contain a blasting plan for the proposed permit area, explaining how the applicant will

comply with the requirements of 10 CSR 40-3.050(1)–(6). This plan shall include, at a minimum, information setting forth the limitations the operator will meet with regard to ground vibration and air blast, the bases for those limitations and the methods to be applied in controlling the adverse effects of blasting operations.

(B) Monitoring System. Each application shall contain a description of any system to be used to monitor compliance with the standards of 10 CSR 40-3.050(5), including the type, capability and sensitivity of any blast monitoring equipment and proposed procedures and locations of monitoring.

(C) Blasting Near Underground Mines. Blasting operations within five hundred feet (500') of active underground mines require approval of the state and federal regulatory authorities concerned with the health and safety of underground miners.

#### (5) Operations Plan—Maps and Plans. Each application shall contain maps and plans of the proposed mine plan and adjacent areas as follows:

(A) The maps and plans shall show the lands proposed to be affected throughout the operation and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown under 10 CSR 40-6.040(14) and (15);

(B) The following shall be shown for the proposed permit area unless specifically required for the mine plan area or adjacent area by the requirements of this section:

1. Buildings, utility corridors and facilities to be used;

2. The area of land to be affected within the proposed mine plan area according to the sequence of mining and reclamation;

3. Each area of land for which a performance bond will be posted under 10 CSR 40-7;

4. Each coal storage, cleaning and loading area;

5. Each topsoil, spoil, coal waste and noncoal waste storage area. Except for topsoil and spoil, the narrative should be in accordance with the appropriate section(s) of 10 CSR 40-3.080;

6. Each water diversion, collection, conveyance, treatment storage and discharge facility to be used;

7. Each air pollution collection and control facility;

8. Each source of waste and each waste disposal facility relating to coal processing or pollution control in accordance with 10 CSR 40-3.080(1)–(6);

9. Each facility to be used to protect and enhance fish and wildlife and related environmental values;

10. Each explosive storage and handling facility; and

11. Location of each sedimentation pond, permanent water impoundment, coal processing waste bank and coal processing waste dam and embankment in accordance with section (11) and fill area for the disposal of excess spoil in accordance with section (16).

(C) Maps, plans and cross-sections required under paragraphs (5)(B)4., 5., 6., 10. and 11. of this rule shall be prepared by or under the direction of and certified by a qualified registered professional engineer or a professional geologist experienced in the design and construction of impoundments, with assistance from experts in related fields such as land surveying and landscape architecture except that—

1. Maps, plans and cross-sections for sedimentation ponds may only be prepared by a qualified registered professional engineer; and

2. Spoil disposal facilities, maps, plans and cross-sections may only be prepared by a qualified registered engineer.

(6) Air Pollution Control Plan. The application shall contain an air pollution control plan which includes the following:

(A) An air quality monitoring program, if required for approval, to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices under subsection (6)(B) of this rule to comply with applicable federal and state air quality standards; and

(B) A plan for fugitive dust control practices, as required under 10 CSR 40-3.090.

(7) Fish and Wildlife Plan.

(A) The fish and wildlife plan requirements shall be consistent with the Endangered Species Act of 1973, as amended (16 U.S.C. Section 1531, et seq.); section 444.855.2(17), RSMo; 10 CSR 40-3.040(18) and 10 CSR 40-3.100.

(B) Each application shall contain a fish and wildlife plan which provides—

1. A statement of how, to the extent possible using the best technology currently available, the plan will minimize disturbances and adverse impacts on fish and wildlife and related environmental values during surface coal mining and reclamation operations and how enhancement of these resources will be achieved, where practicable. The plan shall be consistent with the requirements of 10 CSR 40-3.100; cover the mine plan area and portions of adjacent areas as determined by the director pursuant to 10 CSR 40-6.040(11); and

2. If the applicant states that it will not be practicable, in accordance with paragraph (7)(B)1. of this rule, to achieve a condition

which clearly shows a trend toward enhancement of fish and wildlife resources at the time revegetation has been successfully completed under 10 CSR 40-3.120, a statement shall be provided which establishes, to the satisfaction of the director, why it is not practicable to achieve this condition.

(C) A statement must be included in the fish and wildlife plan explaining how the applicant will utilize impact control measures, management techniques and monitoring methods to protect or enhance the following, if they are to be affected by the proposed activities:

1. Listed or proposed threatened or endangered species of plants or animals listed by the secretary under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531, et seq.) and their critical habitats;

2. Species such as eagles, migratory birds or other animals protected by state or federal law, and their habitats, or other species identified through the consultation process pursuant to 10 CSR 40-6.040(11); or

3. Habitats of unusually high value for fish and wildlife, such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, reproduction and nursery areas and wintering areas, and including those sites listed as having significance in the Missouri Natural Features Inventory.

(D) Each fish and wildlife plan shall include a description of how, to the extent possible using the best technology currently available, the operator will minimize disturbances and adverse impacts on fish and wildlife and related environmental values, including compliance with the Endangered Species Act, during the surface coal mining and reclamation operations and how enhancement of these resources will be achieved where practicable. This description shall—

1. Be consistent with the requirements of this section.

2. Apply, at a minimum, to species and habitats identified under subsection (7)(C); and

3. Include—

A. Protective measures that will be used during the active mining phase of operation. Such measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines, species and habitats and the monitoring of surface water quality and quantity; and

B. Enhancement measures that will be used during the reclamation and postmining phase of operation to develop aquatic and terrestrial habitat. Such measures may include restoration of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and

cover, and the replacement of perches and nest boxes. Where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.

(8) Reclamation Plan—General Requirements.

(A) Each application shall contain a plan for reclamation of the lands within the proposed permit area, showing how the applicant will comply with section 444.855, RSMo, 10 CSR 40-3 and 10 CSR 40-4 and the environmental protection performance standards of the regulatory program. The plan shall include, at a minimum, all information required under sections (8)—(17).

(B) Each plan shall contain the following information for the proposed permit area:

1. A detailed timetable for the completion of each major step in the reclamation plan;

2. A detailed estimate of the cost of reclamation of the proposed operations required to be covered by a performance bond under 10 CSR 40-7 with supporting calculations for the estimates;

3. A plan for backfilling, soil stabilization, compacting and grading, with contour maps or cross-sections that show the anticipated final surface configuration of the proposed permit area in accordance with 10 CSR 40-3.110(1)—(6);

4. A plan for removal, storage and redistribution of topsoil, subsoil and other material to meet the requirements of 10 CSR 40-3.030(1)—(5);

5. A plan for revegetation as required in 10 CSR 40-3.120(1)—(7), including, but not limited to, descriptions of the:

A. Schedule of revegetation;

B. Species and amounts per acre of seeds and seedlings to be used;

C. Methods to be used in planting and seeding;

D. Mulching techniques;

E. Irrigation, if appropriate and pest and disease control measures, if any;

F. Measures proposed to be used to determine the success of revegetation as required in 10 CSR 40-3.120(6), including a plan for revegetation and liability release as required in 10 CSR 40-3.120(1)—(7) and also including, but not limited to:

(I) A map showing locations of proposed test plots and reference areas on a scale not less than one inch equals five hundred feet (1" = 500'); and

(II) A map delineating the area which will be proposed for release based on the outcome of the test plots;

(III) A statement indicating when mining occurred at the area proposed for release;



(IV) Documentation that the reference areas chosen are representative of the soils in the permit area before mining and that test plots chosen are representative of the reconstructed soils in the permit area;

(V) A statement indicating which crop(s) will be used to prove success of revegetation, what harvesting method will be employed to gather the necessary data and what statistics will be employed to assure random sampling if harvesting will be done from a portion of the test plots and reference areas;

(VI) A statement that plots will be treated equally with regard to seeding dates, fertilization for the same yield goal, herbicide use, tillage type and frequency, row spacing, planting rates and harvest dates;

(VII) How the plots will be marked in the field;

(VIII) If the land to be used for plots is not under company control, a statement from the company granting the commission the right of entry must be included;

(IX) An account of the method to be used to randomly choose the plots;

(X) A soil testing plan that includes, at a minimum, tests for pH, nitrogen, phosphorus, potassium, calcium, magnesium, sulfur and lime requirement; and

(XI) A plan discussing how the vegetation on the affected area will be maintained until Phase III release is approved;

G. A soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation; and

H. Nutrient and soil amendment plans;

6. A description of the measures to be used to maximize the use and conservation of the coal resources;

7. A description of measures to be employed to ensure that all debris, acid- and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with 10 CSR 40-3.080(8) and 10 CSR 40-3.110(3) and a description of the contingency plans which have been developed to preclude sustained combustion of materials;

8. A description, including appropriate cross-sections and maps of the measures to be used to seal or manage mine openings and to plug, case or manage exploration holes, other bore holes, wells and other openings within the proposed permit area, in accordance with 10 CSR 40-3.020(1)–(3); and

9. A description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. Section 7401) and Clean Water Act (33 U.S.C. Section 1251) and other applicable air and water quality laws and regulations and health and safety standards.

(9) Reclamation Plan—Protection of Hydrologic Balance.

(A) Sampling and Analysis. All water quality analyses performed to meet the requirements of this section shall be conducted according to the methodology in the fifteenth edition of *Standard Methods for the Examination of Water and Wastewater*, which is incorporated by reference, or the methodology in 40 CFR Parts 136 and 434. Water quality sampling performed to meet the requirements of this section shall be conducted according to either methodology listed previously when feasible.

(B) Each plan shall contain a detailed description, with appropriate maps and cross-section drawings of the measures to be taken during and after the proposed surface mining activities in accordance with 10 CSR 40-3 to ensure the protection of—

1. The quality of surface and ground water systems, both within the proposed mine plan and adjacent areas, from the adverse effects of the proposed surface mining activities;

2. The rights of present users of surface and ground water; and

3. The quantity of surface and ground water both within the proposed mine plan area and adjacent area from adverse effects of the proposed surface mining activities or to provide alternative sources of water in accordance with 10 CSR 40-6.040(8) and 10 CSR 40-3.040(14), where the protection of quantity cannot be ensured.

(C) The description shall include:

1. A plan for the control, in accordance with 10 CSR 40-3 of surface and ground water drainage into, through and out of the proposed mine plan area; and

2. A plan for the treatment, where required under 10 CSR 40-3 and 10 CSR 40-4 and the regulatory program, of surface and ground water drainage from the area to be disturbed by the proposed activities and proposed quantitative limits on pollutants in discharges subject to 10 CSR 40-3.040(2), according to the more stringent of the following:

- A. 10 CSR 40-3 and 10 CSR 40-4 and the regulatory program; or

- B. Other applicable state and federal laws;

3. A plan for the restoration of the approximate recharge capacity of the mine plan area in accordance with 10 CSR 40-3.040(11);

4. A plan for the collection, recording and reporting of ground and surface water quality and quantity data, according to 10 CSR 40-3.040(12); and

5. If the determination of the probable hydrologic consequences (PHC) required by subsection (9)(D) of this rule indicates that

adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid- or toxic-forming material is present that may result in the contamination of ground or surface water supplies, then information supplemental to that required under 10 CSR 40-6.040(6) and (7), shall be provided to evaluate this PHC and to plan remedial and reclamation activities. This supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows or analysis of other water quality or quantity characteristics.

(D) The description shall include a determination of the probable hydrologic consequences of the proposed surface mining activities, on the proposed mine plan area and adjacent area, with respect to the hydrologic regime and the quantity and quality of water in surface and ground water systems under all seasonal conditions, including the contents of dissolved and total suspended solids, total iron, pH, total manganese and any other parameters required by the director.

1. The PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site.

2. The PHC determination shall include findings on:

- A. Whether adverse impacts may occur to the hydrologic balance;

- B. Whether acid- or toxic-forming materials are present that could result in the contamination of surface or ground water supplies;

- C. Whether the proposed operation may approximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose;

- D. What impact the proposed operation will have on—

- (I) Sediment yield from the disturbed area;

- (II) Acidity, total suspended and dissolved solids and other important water quality parameters of local impact;

- (III) Flooding or stream flow alteration;

- (IV) Ground and surface water availability; and

- (V) Other characteristics as required by the regulatory authority.

(E) An application for a permit revision shall be reviewed by the regulatory authority to determine whether a new or updated PHC determination shall be required.